

LESSONS FROM THE MEXICAN CRISIS FOR REFORMING ECONOMIES

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CONTENTS

FOREWORD

In war and peace, adversaries must conclude a deal. In economic analysis, only debatable issues deserve investigation. One economic issue meeting this criterion is exchange rate policy. While some developing countries have used the exchange rate as a nominal anchor to curb inflation and convey a sense of reform credibility, the experiences of several countries suggest that accumulated appreciation erodes competitiveness and encourages imports and consumption at the expense of savings, both of which hurt economic growth. No peace is yet in sight.

In this first publication of the Distinguished Lecture Series, Eliana Cardoso makes a persuasive case for avoiding real exchange rate appreciation. Her analysis is not only grounded in theory, but also substantiated by evidence from Chile, Mexico, and Argentina. Her main thesis is that countries eventually pay dearly for avoiding devaluation when necessary. The cost is a sacrifice of growth and employment.

In exploring the implications of her analysis for reforming economies, Cardoso warns that Brazil and Egypt should avoid the path traveled by Chile in the late seventies and early eightis and by Mexico during the period before its crisis erupted in 1994. Egypt would do well to follow a more flexible exchange rate policy, along with other reforms to promote productivity and growth.

In the discussion that followed Cardoso's presentation on February 27, 1996, her case is counterargued by some prominent Egyptians. Whether readers agree with Cardoso or with those who argued against her views, I have no doubt that they will find the discussion in this publication very informative.

Indeed, this is the objective of the Distinguished Lecture Series, which is a monthly event sponsored by ECES to bring to Egypt international economists reputed for their major impacts on economic thought and policy formulation. Along with disseminating international experience in Egypt, the gathering is meant to provide a forum for exchanging views on important policy issues with equally distinguished participants. Both Cardoso and the participants proved that these objectives are more than worth pursuing.

Ahmed Galal
Executive Director and Director of Research, ECES
March 1996

About the Speaker

Eliana Cardoso

Secretary for International Affairs, Brazil

Eliana Cardoso is a leading authority on economic reform in Latin America, distinguished in economics both as a scholar and a practitioner. After earning her Ph.D. in economics from MIT, Cardoso taught at Boston University and later at the Fletcher School of Law and Diplomacy at Tufts University. She was also Visiting Associate Professor of Economics at Yale University and MIT.

In 1994 Eliana Cardoso joined the World Bank, where she served as the lead economist for the China and Mongolia department. Currently, she is the Secretary for International Affairs and Senior Economic Advisor to the Minister of Finance in Brazil.

Cardoso has written extensively on such diverse issues as inflation, income distribution, development, and exchange rate policy. Her published books include *Latin America's Economy: Diversity, Trends, and Conflicts and Cuba After Communism* (both, MIT Press 1992). She has published more than seventy articles in prominent economic Journals in the United States and Latin America. She is a research associate of the National Bureau of Economic Research in Cambridge, Massachusetts, and serves on the boards of *Journal of Latin America Studies* and *Nova Economia.*

PART I

LESSONS FROM THE MEXICAN CRISIS FOR REFORMING ECONOMIES

1. Introduction

In the late 1980s and early 1990s, the consensus among institutions and opinion leaders on the need to liberalize trade, privatize state enterprises, and balance government budgets marked a fundamental turning point in Latin America's economic affairs. Investment bankers and finance ministers looked first at Chile and then at Mexico as the models for the new regime. But the 1994 Mexican crisis put an end to excessive optimism and raised questions about the limits of market reforms and the role of capital flows in emerging markets.

All told, the 1994 Mexican crisis teaches us more about poor management of monetary and exchange rate policies than about long-run development prospects. The Mexican crisis does not make us doubt the need for reform, but adds a word of caution about the efficacy of reform in rapidly transforming a developing economy into a sum of well-functioning markets.

The focus of this paper is on the repercussions of the combination of poor macro policies with global financial integration. The discussion of the impact of the Mexican crisis on Brazil and the lessons from stabilization experiences based on the exchange rate anchor is aimed at emphasizing the central role of the real exchange rate in promoting a dynamic economic environment. The following sections look at wrong and right uses of the exchange rate in a stabilization program, and some undesirable side effects of capital flows.

2. The Mexican Crisis

The positive side of the last 10 years of economic reform in Mexico is outstanding. Fiscal discipline, tax reform, financial liberalization, liberalization of trade and foreign investment, and privatization contributed to increased productivity. Nonetheless, these market reforms were limited by flawed macroeconomic management that produced overvaluation and low domestic savings.

The boom in foreign portfolio investment in Mexico initially helped the reform by allowing interest rates to come down after the 1989 stabilization, but in the end, by supporting the exchange rate overvaluation, it brought the collapse of the economy. The boom in capital flows was induced, in good measure, by financial conditions abroad and helped mask the severity of the current account deficits and the decline in private savings. As capital continued to flow in,

it further sustained the peso overvaluation and clouded policy makers' perception of the maturing crisis.

The problem with exchange rate overvaluation is that it is often associated with a boom in consumption involving a very large increase in imports and a decline in private savings. An overvalued exchange rate encourages agents to bring forward imports which they fear may become more expensive later. Moreover, when this takes place at the same time as trade liberalization, its effects are multiplied, leading to a jump in imports as controls are dismantled. If reforms face a credibility problem, firms and households doubt that trade liberalization will be maintained and go on a precautionary import binge. For these reasons, a boom in imports has often been a characteristic of periods of economic reform. Nonetheless, current account deficits are not tolerated indefinitely by international capital markets. And the problems created by overvaluation will not disappear without devaluation. The further the correction is postponed, the worse the delayed adjustment will be.

The guise under which the Mexican crisis appeared may look different from other currency collapses, but the problems leading to the crisis were well-known beforehand. The crisis had a long gestation. Mexico's mounting economic problems were the subject of considerable scrutiny well before the December 1994 balance of payments crisis (see Dornbusch and Werner 1994). The real overvaluation of the peso, the large current account deficit (financed by massive capital inflows), and the declining trend in private savings were unsustainable.

The main lesson from the crisis is not that understanding the problems at hand was difficult. The issues were technically very simple. As observed by Naim (1995), the difficulty emerged from implementing the right measures because they were politically difficult to apply.

Few governments will resist the temptation to let the real exchange rate appreciate as long as money is flowing in and financing their current account deficits. They will argue that productivity in the tradable goods sector is growing enough to justify real appreciation and that the current account deficit is being used to finance capital good imports that will generate more than enough exports tomorrow to pay for the accumulated liabilities. The hard truth is that productivity growth would have to be well above what is credible to justify the size of real appreciation which occurs at the beginning of exchange rate-based stabilization programs.

In the end, correcting overvaluation always leads to painful adjustment. What was new in the Mexican crisis was how deeply and widely the shock waves of the crash were felt. This had more to do with the transformation of the international financial system than with Mexico's domestic policies. When the crisis erupted, the initial reaction of investors suggested that the Mexican financial crisis was going to compromise all emerging markets, as stock prices plunged, particularly in Argentina and Brazil, currencies weakened in developing countries from Thailand to Bulgaria, and foreign portfolio investment disappeared. The IMF bent its rules and joined the United States in the rescue operation. The United States committed US$20

billion from the Exchange Stabilization Fund, and the IMF pledged US$17.8 billion to support Mexican reform. They successfully insulated financial markets from the crisis. But Mexico's domestic problems persisted and the economy continued its downward spiral with an eight-percent decline in economic growth in 1995.

3. Brazil and the Mexican Crisis

During the second half of 1994, Brazil's economy was reasonably sound, with structural reforms moving ahead as planned. Economic growth was strong (table 1). The trade balance was only beginning to show signs of a deficit that was to increase in the following quarter. Stabilization, embodied in the *Real Plan* (see Appendix I), had caused inflation to fall sharply—from more than 5,000 percent between June 1993 and June 1994 to less than 25 percent between July 1994 and July 1995. All remaining macroeconomic weaknesses stemmed from the fiscal imbalances of provincial states and from too-rapid trade liberalization. When Mexico's peso crisis hit in December 1994, Brazil's foreign reserves were high, which gave the economic authorities some latitude in choosing how to respond to the crisis.

But Mexico's crisis hit Brazil at a delicate moment. The trade balance, which for ten years had been in surplus, was showing a deficit during the last two months of 1994 that persisted through 1995 and contributed to a rising current account deficit (table 1). The deficit was a consequence of increased economic activity following the *Real Plan* and of further efforts at trade liberalization.

In a review of the emerging crisis on December 28, 1994, The Wall Street Journal noted that "the dollar value of the peso fell yesterday to new lows, at one point touching 5.7 pesos, with the crisis already spreading to Brazil, where the stock index lost 3.8 percent, and Argentina, down 4 percent." The article concluded on an alarming note: "Given this volatile situation, and given the enormous stakes involved, Mexico needs all the help it can get...but so far it seems that all the potential leaders are off on siesta."

But the leaders in Brazil were not sleeping. In response to Mexico's shock, Brazil's policy makers made prudent decisions that protected the recently achieved stabilization. Moreover, the speedy response of the US government and the International Monetary Fund was perhaps even more important than domestic policies in reversing capital flight.

Mexico's crisis led to an immediate cutback in capital flows to emerging markets. In recent years net foreign capital inflows to Brazil were sufficient to finance small current account deficits while contributing to an increase in foreign reserves. This capital, however, consisted primarily of short-term resources tied to portfolio investments. (In 1994, for example, 70 percent of the $9 billion net foreign investment went to portfolio investments.) During the fourth quarter of 1994 and the first quarter of 1995, the net flow of capital was insufficient to

finance the current account deficit, and the central bank lost reserves of about $9.8 million (figure 1). Although portfolio investment as a share of net capital flows declined in 1995, the crisis did not affect direct investment inflows.

Table 1. Selected Brazilian Economic Statistics, 1990-95

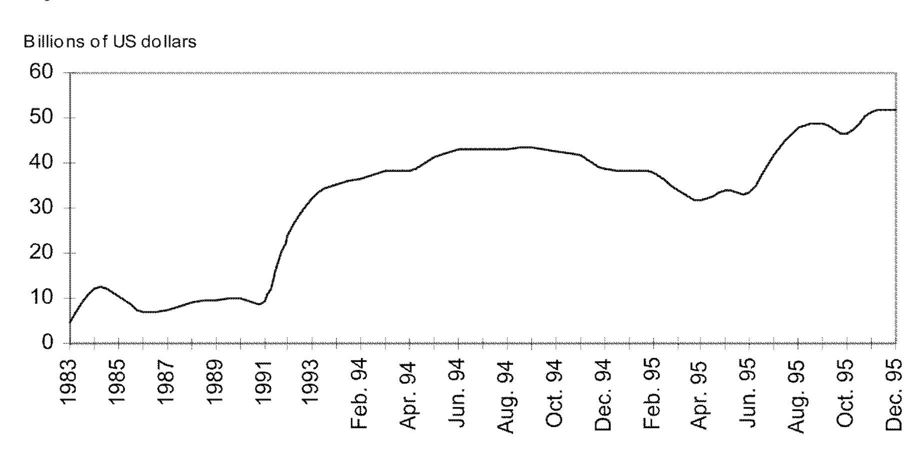
	1990	1991	1992	1993	1994	1995*
Gross Domestic Product (billions of dollars)(1)	417.0	437.0	450.0	485.0	550.0	570.0
Real GDP growth (%) (2)	-4.4	0.2	-0.8	4.1	5.8	4.2
Unemployment Rate (%) (3)	4.3	4.8	5.8	5.3	5.0	5.0
Inflation Rate (Dec-Dec.%) (4)	1476.0	480.0	1158.0	2709.0	1094.0	16.0
Nominal Devaluation (Dec-Dec. %)	1567.0	515.0	1063.0	2389.0	738.0	15.0
Real Interest Rate (%) (5)	-4.8	6.7	30.2	7.1	24.8	33.0
Balance of Payments (billions of dollars)						
Exports	31.4	31.6	35.8	38.8	43.6	46.5
Imports	20.7	21.0	20.6	25.7	33.2	50.0
Current Account	-3.8	-1.4	6.1	-0.6	-1.5	-17.8
Capital Account	5.3	0.8	10.3	10.7	9.2	30.7
Total Official Reserves	10.0	9.4	23.8	32.2	38.8	51.8
Total Net Public Debt (percent of GDP)	42.7	43.5	42.7	38.4	28.5	31.6
Net Internal Debt	18.7	15.9	21.2	21.6	20.3	25.9
Net External Debt	24.0	27.6	21.5	16.8	8.3	5.7

* Preliminary Estimate
(1) Converted to dollars based on the average exchange rate for each year.
(2) Based upon constant average 1994 reals.
(3) Average annual unemployment rate of the metropolitan regions of Belo Horizonte, Porto Alegre, Recife, Rio de Janeiro, Salvador, and Sao Paulo.
(4) Percent change in the General Price Index-Domestic Supply (GPI-DS), calculated by the Getulio Vargas Foundation.
(5) Brazilian federal treasury securities deflated by the GPI-DS and adjusted at each month-end.
Sources: IBGE, Getulio Vargas Foundation, and Central Bank.

The Mexican shock forced Brazilian policy makers to pay attention to trade deficits, which had increased with the expansion in demand caused by the *Real Plan* and continued during the

early months of 1995. Continued financial instability in early 1995 and demand expansion made policy makers reorder priorities. In March 1995 the economic authorities adopted fiscal and monetary measures to control aggregate demand and to improve the balance of payments. Fiscal measures included: spending cuts for federal and state enterprises, restrictions on federal payroll outlays, and changes in legislation to increase tax revenues (for example, income taxes were levied on dividends from financial investments).

Figure 1. International Reserves, Brazil, 1983-1985



Source: Central Bank of Brazil

Measures were also taken to control credit growth, including: a mandatory 60 percent deposit with the central bank on bank assets used for collateral guarantees and select loans; an increase in the tax rate on financial operations involving bank loans (including negative balances on credit
card debts and promissory notes) from 6 percent to 18 percent; a prohibition on financial intermediation involving commercial paper by banks; and an increase in the reserve requirement for time deposits.

On the external side, the following policy adjustments were made: the Ministry of Finance abolished the taxes imposed in October 1994 on the purchase of Brazilian equities by foreigners and foreign credit transactions; the tax on foreign investments in Brazilian fixed income funds was reduced to 5 percent; the central bank adopted a new exchange float band and devalued the currency by 5.2 percent against the dollar. Exporters received additional

incentives through tax reductions on domestic inputs. Tariffs on certain durable consumer goods and vehicles increased from 20 percent to 70 percent.

The policy measures had the desired outcome. Economic growth slowed, and by August 1995 the trade balance was positive. Capital inflows and foreign reserves also recovered. As a result, the tax on foreign investment in fixed-income instruments was raised from 5 percent to 7 percent, and on bond placements from zero to 5 percent. New foreign investment in stock options and futures markets was prohibited. During the fourth quarter of 1995 the economic authorities began rolling back some of the restrictive measures and easing credit restrictions.

Mexico's shock had a limited, short-term impact on the Brazilian economy, confined to a significant decline in foreign reserves and inflows of portfolio investment during the first four months following the collapse. The stabilization achieved by the *Real Plan* survived the shock, and by mid-1995 policy makers faced the same fundamental challenges as before the shock. In broad terms, insufficient fiscal adjustment continued to impose an excessive burden on monetary, credit, and exchange rate policies.

4. The Costs of Real Exchange Rate Appreciation

The Mexican crisis shows that the effects of real appreciation compound slowly, and that export growth is not a sufficient test of overvaluation. If private savings are falling and the economy is not growing, the real exchange rate is probably out of balance. At that point, reducing inflation below 20 percent should no longer be a priority for policy makers, and the use of an exchange rate anchor to control inflation must be reviewed.

The costs of real appreciation compound slowly. The run on the Mexican peso highlighted the volatility of many forms of capital movement and the risks that arise when capital inflows sustain exchange rate overvaluation and large current account deficits. The crisis took years to develop because the risks and costs of overvaluation grow slowly and explode suddenly. As long as reserves and capital flows are available, the temptation to continue to use the exchange rate to keep inflation under control seems irresistible. This phenomenon of accumulated real appreciation can be detected in three Latin American stabilization programs that used the exchange rate as a nominal anchor: Chile during the period 1975–81, Mexico during 1987–93, and Argentina during 1990–95.

Mexico in the 1990s had much in common with Chile during the late 1970s and early 1980s. Chile also used the exchange rate to reduce inflation. It experienced real appreciation, sizable capital inflows, large external deficits—and in 1982, a big devaluation and recession.

Mexico and Argentina recently followed a similar stabilization path, reducing inflation by

using an exchange rate anchor, building up fiscal surpluses, pursuing trade liberalization, and supporting privatization. Both countries also enhanced productivity by reforming goods and labor markets. But fiscal adjustment and productivity growth are not enough to counterbalance an overvalued exchange rate, because overvaluation encourages a decline in savings as residents substitute present for future consumption. Mexico's exports were growing strongly in 1994, but national savings had declined to very low levels (13.7 percent of GDP). Overvaluation in Chile during 1978–81 was also characterized by a low level of savings, averaging just 10 percent of GDP during 1978–81 (Milesi-Ferreti and Razin 1996). Overvaluation also hinders economic activity because of the high interest rates needed to maintain the capital inflows that support the exchange rate. As growth dwindles, savings decline further, leading to a vicious circle of low savings and low growth.

The accumulated real appreciation of the Mexican, Chilean, and Argentine domestic currencies during times of crisis is shown in figures 2, 3, and 4. The accumulated real appreciation is the area between the line representing domestic inflation and the line representing foreign inflation in domestic currency. In a given year the rate of real appreciation is equal to

$$\{(1+p)/(1+p^*)(1+e)\} - 1$$

where p is the domestic inflation rate, p^* is the inflation rate in industrial countries, and e is the rate of nominal depreciation.

The three figures have some common patterns. In each figure, inflation drops quickly following the introduction of a stabilization program based on the exchange rate anchor. Real appreciation increases in the first year of the program; after the first year the rate of change in real appreciation declines significantly. Although inflation quickly converges with foreign inflation in domestic currency, it remains above it during the years that precede the crisis, leading to accumulated overvaluation. In all three cases the crisis takes time to develop, because the effect of real appreciation comes after a lag. However, the current account deficit increases as real appreciation accumulates.

In the end, the economic problems created by overvaluation manifest themselves in dramatic ways. In Chile in 1982 and Mexico in 1994, the peso collapsed, leading to difficult adjustment measures. In Argentina in 1995, 20 percent of the labor force became unemployed.

Brazil is entering its second year of low inflation, and the dangers of real appreciation are waiting ahead. But policy makers have absorbed the lessons from Argentina, Chile, and Mexico. At the start of the program they chose institutional flexibility and adopted a regime of exchange rate bands. These bands have already been adjusted four times since the program began. Real appreciation accumulated in 1994 was partially corrected in 1995.

Figure 2. Accumulated Real Appreciation, Mexico, 1987-1993

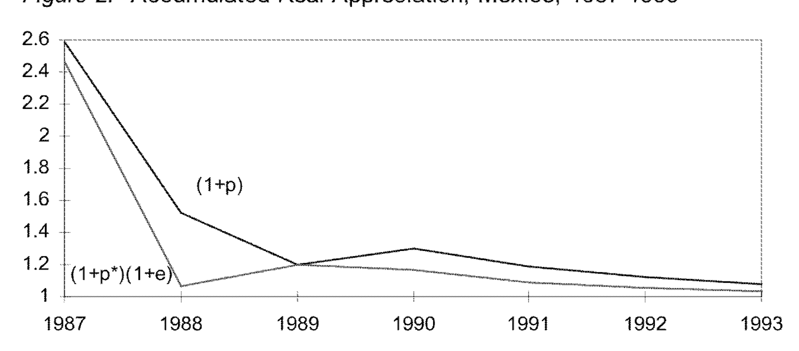


Figure 3. Accumulated Real Appreciation, Chile, 1975-1981

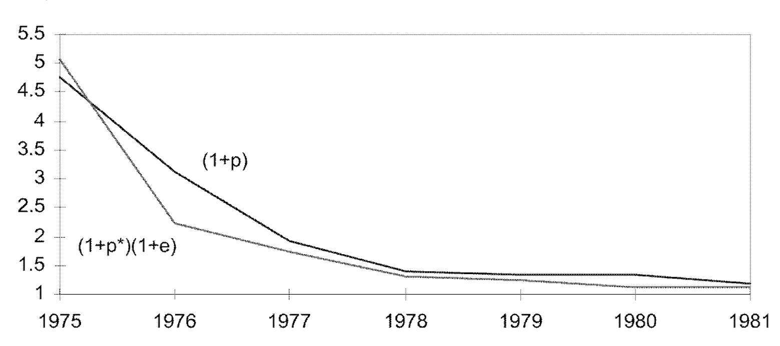


Figure 4. Accumulated Real Appreciation, Argentina, 1990-1995



There are bad and good uses of the exchange rate anchor in stabilization programs. Brazil has learned that sustained stabilization depends on fiscal equilibrium. But fiscal austerity is difficult to achieve and requires time-consuming reforms. Thus it is essential to develop a short-term strategy when making the transition from high inflation (with periods marked by large fiscal and quasi-fiscal deficits, capital flight, and mechanisms that perpetuate inflation) to low inflation (consistent with small and sustainable deficits).

The wrong way. The exchange rate must be used during the first stage of easing four-digit annual inflation because it synchronizes expectations and stops mechanisms (such as formal indexation) that tend to perpetuate inflation. After inflation has been brought down to double digits, however, continued use of the exchange rate produces serious distortions.

To sustain external equilibrium and reduce trade deficits as the real exchange rate appreciates, policy makers often use monetary policy to reduce aggregate demand. The difference between domestic and foreign interest rates increases external borrowing and sustains real appreciation. But Sargent and Wallace's 1986 unpleasant arithmetic has shown that tight monetary policy cannot kill inflation where persistent budget deficits are present. Furthermore, high real interest rates make fiscal adjustment even more difficult because they increase public debt servicing. They also contribute to the deterioration of bank portfolios and increase the need for subsidies to recapitalize banks. It is not easy to reduce real interest rates without generating more inflation; it requires a boost of confidence that can only be achieved with a realistic exchange rate policy and an improvement in fiscal and current account balances.

The right way. It is difficult to make the public and policy makers accept the truth that inflation will not disappear completely because of inertia and remaining fiscal imbalances. But trying to force inflation down to single-digit levels by using monetary and exchange rate policies reduces domestic savings and creates unsustainable current account deficits. Thus, correcting current account deficits through tight monetary policies that reduce demand for both domestic and foreign goods is not a solution to the problem. Such an approach kills growth, and when growth disappears so do private savings. Accepting inflation between 10 and 20 percent may ease necessary adjustments.

In Brazil, with the recent sharp decline in inflation, banks lost the revenue from the inflation tax on demand deposits, which amounted to more than US$9 billion in 1993, according to calculations from the Central Bank. Furthermore, high real interest rates have contributed to the deterioration of commercial bank portfolios. The number of banks grew from less than 190 in 1988 to more than 270 in 1994; some of these will have to disappear or merge. From 1994 to early 1996, the Central Bank had already liquidated 17 small banks, and intervened in five state banks and three private banks. Keeping interest rates too high and liquidity tight to force inflation down may produce gains in inflation reduction that are later lost in a banking crisis.

Therefore, the constraint imposed by a group of unsound banks must be taken into account when formulating inflation targets.

Lower real interest rates would also contribute to the fiscal adjustment, as would privatization. Using privatization to reduce public debt will permit a less painful path by reducing debt service. It will also boost confidence and help reduce the difference between domestic and foreign interest rates. Brazil introduced its privatization program in 1981. In 1995 the central government still controlled about one hundred enterprises. Among these, 29 are in telecommunications, five in electricity, 13 in oil, and 14 are part of the Company of the Vale do Rio Doce; the rest are small transport enterprises, hospitals, and data processing enterprises. The electricity companies, with a market value of $14 billion, and Company of the Vale do Rio Doce, worth $10 billion, are slated to be privatized during 1996.

Despite opposition from labor unions and some political forces, the privatization program is popular. A privatization council directly under the president and the National Bank of Development coordinate the program. The process and rules are transparent. The auctions are conducted on Brazil's stock exchange. With the fundamentals in place, the program now needs to be accelerated.

5. The Challenges Ahead for Brazil

The challenges in cutting fiscal deficits and maintaining a competitive exchange rate are difficult, but the prospects are good. Brazil's economic authorities are aware that sustainable stabilization will require small current account deficits that are financed by sustainable medium- and long-term capital flows. To reconcile a small current account deficit with the capital investment needed for growth, domestic savings must increase. Increased savings can be achieved by reducing government deficits and creating an environment that encourages private savings.

Fiscal austerity will depend on longer-term structural reforms, including administrative, tax, and social security reforms. Constitutional amendments will be needed to implement some of these reforms. The outlook for congressional support is hopeful, since the two main opposition parties command just 16 percent of the lower house of Congress.

During 1995, Brazil made important progress in advancing structural reforms, opening the way for private activity in telecommunications and natural gas distribution, ending the distinction between Brazilian and foreign enterprises in mining and electricity, and allowing foreign shipping companies to transport goods between Brazilian ports.

A number of other reforms will bring long-run results and help increase savings. A proposed constitutional amendment on public administration, the judiciary, and civil service, among other goals, seeks to increase the efficiency of public administration, help balance public

budgets, and achieve greater flexibility in terminating employment. A constitutional amendment on social security seeks to create a new system that is fair and financially viable. There will be a ceiling on contributions and benefits from social security, and three areas will be addressed to eradicate current distortions: developing administrative controls based on proper information systems, automation, and modernization; simplifying legislation to limit the possibility of multiple interpretations; and redesigning the public social security system to eliminate the ability of states and municipalities to legislate on social security, and to eliminate multiple retirement programs.

Such reforms, in Brazil as elsewhere, face opposition from groups that benefit from the status quo and thus oppose changes in legislation. Consequently, negotiation in Congress is time consuming. But the process is positive because transparent discussions and explicit negotiations contribute to the credibility and permanence of reforms.

The most urgent task now is to bring interest rates down and curb excessive capital inflows. Table 2 compares net capital flows to Latin America and the Caribbean in the 1990s and 1980s. The difference between the total net capital flows between 1990-94 1983-89 is US$ 317 billion. Between 1990 and 1994, more than half of net capital flows were net portfolio investments that, from a trickle in the 1970s and 1980s, climbed to an average net flow of US$ 27 billion per year (table 2).

Table 2. Capital Flows to Latin America and the Caribbean

(annual averages, in billions of US dollars)

	1977-82	1983-89	1990-94
Total Net Capital Inflows	26.3	-16.6	40.1
Net Foreign Direct Investment	5.3	4.4	11.9
Net Portfolio Investment	1.6	-1.2	26.6
Other	19.4	-19.8	1.6

Source: David Folkerts-Landau and Takatoshi Ito, International Capital Markets, Developments, Prospects, and Policy Issues, International Monetary Fund, Washington D.C., August 1995.

6. Capital Inflows

Excessive capital inflows can be problematic, but the problems they cause are not without solutions.

Why Capital Inflows Can Be Problematic. The heavy inflow of foreign capital into emerging markets in the 1990s was motivated mostly by relatively low interest rates in industrialized

countries rather than by broadly-based economic reform in emerging markets. (See Calvo and others–1992, and Dooley and others–1994). Fernandez-Arias and Montiel (1995) conclude that formal evidence indicates that falling US interest rates have played a dominant role in driving capital to developing countries. The strongest arguments for change in country-specific factors rely on the variation in the distribution of capital inflows. But this argument is problematic because flows were not restricted to countries with good reform records. The implications are worrisome, because if capital inflows depend more on external factors than on reform, they may not be sustainable and can turn around suddenly, forcing costly adjustment in the recipient countries.

Capital inflows have made a significant contribution to strengthening the role of markets and complementing domestic savings, thus promoting growth. Yet, they can also have harmful effects because of domestic microeconomic distortions and the implications for macroeconomic stability.

Microeconomic distortions (such as incomplete financial markets, improperly-priced implicit government insurance, speculative bubbles, and imperfect competition) can lead to the use of capital inflows for consumption of low social value or low-yielding projects, at the expense of future consumption, which will have to be sacrificed to service the accumulated liabilities.

More worrisome are the macroeconomic problems associated with volatile capital inflows, such as loss of domestic monetary control, real appreciation, and increased instability. The most serious problem induced by short-term capital flows is the real appreciation of the exchange rate that opposes the long-term goals of reform. As long as the commitment to an exchange rate anchor is held, it will encourage investment in domestic financial assets with high exchange rate-adjusted profits. But once markets come to doubt the anchor, the inflows quickly reverse themselves. Latin America is more vulnerable than Asia to these reversals because it has a lower ratio of direct investment and greater dependence of portfolio inflows. There are limits to the size of current account deficits that capital markets are willing to finance. Moreover, their volatility increases the country vulnerability to loss of confidence and to resident capital flight.

Policy Responses to Excessive Capital Flows. The desire to counteract the pressures of exchange rate appreciation in the face of large capital inflows sometimes leads to active central bank intervention. Policies to reduce the impact of capital inflows include direct intervention to reduce inflows through controls and taxes, and a restrictive monetary policy in the form of sterilization.

Controls. Capital inflow controls are designed to discriminate between investment that helps make the economy more productive and responsive to the world market (such as foreign direct investment and long-term equity purchases) and potentially volatile investment

motivated by considerations of short-term gains. Many countries restrict nonresident purchases of short-term paper or require nonresident investors to hold securities for a minimum period before resale is permitted. Some countries also limit foreign borrowing by domestic enterprises—a practice justified on prudential grounds. Other techniques rely on altering relative prices rather than on blanket prohibitions. Reserve requirements on banks' borrowing from nonresidents have been one common way of reducing the returns banks can offer foreigners. Selective taxes have also been applied to limit capital inflows.

But controls cannot work for an extended period of time. A practical difficulty is that controls can often be circumvented in a number of ways, such as by arranging finance and payments abroad and manipulating trade invoicing. Over time, private financial operators find one loophole after another. Yet, at least in the short run, controls have been effective in a number of countries, not only in Asia but also in Latin America, where Chile and Colombia have managed to slow portfolio inflows.

Sterilization. In the 1990s, a decline in nominal interest rates following stabilization in Latin America was not followed by a decline in real interest rates. Interest differentials vis-à-vis industrial countries exceeded expected currency depreciation in the short run and thus preserved incentive to short-run capital inflows. Capital inflows were in part absorbed into an increase in reserves. To avoid the monetary expansion induced by such increase, inflows were in part sterilized. But both partial and complete sterilization are problematic.

Incomplete sterilization increases commercial banks' liquidity, which may permit an excessive expansion of bank credit that will be difficult to undo in the event of foreign capital withdrawal. A clear example is the recent difficulties experienced by the Mexican banking system.

On the other hand, sterilization can create significant fiscal costs in financing high levels of reserve holding. Costs borne by the central bank depend on the scale of the operations and the size of the interest differential vis-à-vis US dollar rates (or rates in other reserve centers). The rise in monetary authorities' gross foreign assets in relation to the increase in the monetary base suggests that sterilization operations were very large in Brazil in the 1990s.

Sterilization tends to preserve an incentive to inflows, as it keeps interest rates high.[1] Relatively high domestic interest rates induce banks to incur open foreign exchange positions by financing local currency lending with foreign currency borrowing. Even when rules limit their own foreign currency positions, banks still become indirectly exposed to the risk of

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[1] Latin America had a tendency for higher real interest rates in the 1990s. In some cases unusually high real interest rates largely reflected the difficulty of establishing and maintaining the credibility of macroeconomic policy in countries with a history of hyperinflation

devaluation. When the use of the exchange rate as a nominal anchor leads to relatively high domestic interest rates, combined with little immediate prospect of devaluation, enterprises are encouraged to take up foreign currency-denominated loans. In cases where the borrowers' revenues are mostly denominated in the domestic currency, the quality of foreign currency loans can also deteriorate in the event of a domestic currency depreciation.

In summary, neither capital controls nor sterilization can overcome the macroeconomic problems induced by excessive short-term capital inflows caused by interest rate differentials. The only solution is to get fundamentals in place by balancing budgets, bringing down interest rates, and avoiding overvaluation.

PART II

EXCHANGE RATE POLICY IN EGYPT

After presenting her paper, Cardoso briefly drew the implications of her analysis regarding exchange rate policy for Egypt. The presentation provoked a lively debate in which the key participants were Adel Bishai, Heba Handoussa, and Said El Naggar from the academic community and research institutions, Samir Tobar, Youssef Boutros Ghali and Hamdi Salah from the government, and Fuad Sultan, Hazem Hassan and Mohamed Mansour from the private sector. *(See Appendix II for a complete list of the attendees and their affiliations.)*

The following is a summary of the discussion.

1. Is There Overvaluation or Not?

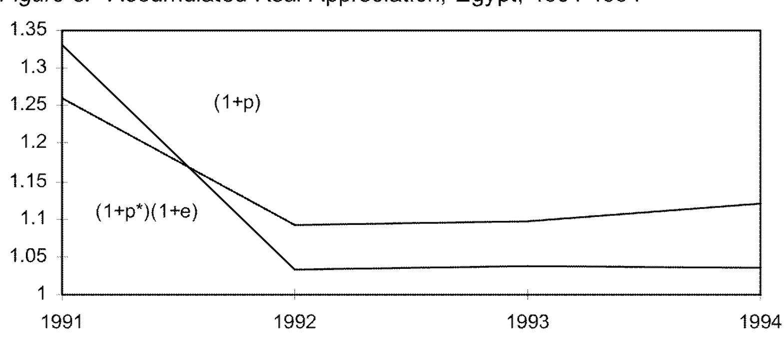
Cardoso contended that the question is debatable, but that there has certainly been real appreciation between 1992-1994 (figure 5):

Egypt has made tremendous progress since 1991 on two fronts. As in Brazil, there has been a big fiscal effort. Budget deficits came down from 17 percent of GDP in the early 1990s to close to 2.5 percent in 1995. Second, there was the exchange rate unification in 1991, and a big devaluation—how much is difficult to tell, because there was no unique exchange rate in 1990 to compare to the new exchange rate at the end of 1991. The numbers may be 30 percent or 50 percent. In that year inflation rose, partly because the fiscal situation wasn't good and partly because devaluation has an inflationary impact. A 30 or 50 percent devaluation is very big, so inflation in 1991 in Egypt was high, on average around 19 percent, but looking at the December-December rate, it was 25 percent. Then as the exchange rate was pegged (or significant devaluation avoided) the inflation rate came down, but more slowly than the depreciation rate. Between 1992-1994 it was around 10 percent, while inflation abroad was about 4 percent.

The inflation rate in Egypt in 1991 was high by Egyptian standards, but compared to Latin America it was not so high. When one uses the nominal exchange rate as an anchor to bring inflation down in Egypt, inflation comes down in a less dramatic way. In Brazil, bringing it down from 5000 to 15 percent is a really dramatic change. Inflation history and indexation are behind very high inflation rates as observed in Brazil and Argentina. By pegging the exchange

rate to the dollar, policy makers can get rid of both formal and informal mechanisms of indexation that do not exist in Egypt.

Figure 5. Accumulated Real Appreciation, Egypt, 1991-1994



Note: Before 1991, there were multiple exchange rates in Egypt. The unification of the exchange rates coincided with a big devaluation. Estimates for the devaluation of the Egyptian currency between December 1990 and December 1991 will vary according to different weights given to the different exchange rates that were in place before the unification. The graph assumes a devaluation of 33% between Dec. 1990-Dec. 1991.

Sources: The World Bank, World Tables 1995; CAPMAS, CPI Monthly Bulletin, several issues; National Bank, Economic Bulletin 1994, and IDSC Monthly Economic Bulletin, several issues.

Given the fiscal situation in Egypt, I doubt that one can bring inflation well below 10 percent per year by fixing the exchange rate without at the same time paying a high cost for real appreciation. If foreigners believe that Egypt is going to reform and privatize, foreign capital will flow in and sustain real appreciation. You may have a boom, but it will not be sustainable. If the real exchange rate is not in place, people will not save, and healthy growth will not take place. So I would be very cautious and look at the different elements involved. Let's correct the exchange rate, and move to a period of sustained growth where productivity will also be increasing with all the good economic reforms that Egypt is now putting in place.

2. Discussion

Participant: Why should one assume that, when the reform programs began in Mexico, Chile, Argentina, Egypt, the exchange rate was at equilibrium? Maybe devaluation has been overdone. If Egypt devalued by 30-50 percent, then there might be a lot of room to maneuver in the next years and allow it to appreciate a little.

To what extent can one say that devaluation's bottom line is simply reducing real incomes and wages in the country? We're talking about the difference between relative prices of domestic and foreign goods. Everything is tradable ultimately, except one factor of production, which is labor.

If we need to devalue in order to become more competitive, then do we have to bring down wages in Egypt, relative to wages abroad? I would venture that Egypt's wages are very close to those in China. Do we really need to lower wages in order to be competitive on the world market?

There are a lot of problems with export and export growth that have very little to do with labor costs, whether or not nominal wages are adjusted for productivity. In Egypt's case, although the inflation rate came down less dramatically than the drastic devaluation of 1991, it was accompanied by a lot of price reforms. A large proportion of prices of goods and services produced in the public sector were raised, which prevented inflation from coming down any faster. But I think it was quite a significant reduction considering that so many prices were shifted upward significantly, including the prices of energy, food and other basic commodities.

Speaker: First, I do not assume that the real exchange rates in Argentina, Chile, Mexico, and Egypt were at equilibrium when reform took place. But I do believe that there is a real possibility that, whatever the case, the real appreciation that followed the stabilization program was big enough to move the exchange rate away from equilibrium. In the case of Chile and Argentina, the exchange rate was already overvalued before stabilization because high inflation rates had not allowed the rate of devaluation to move fast enough to catch up with the inflation differential at home and abroad. And that means that the exchange rate was fixed when it was already overvalued. I suspect the same was true for Mexico. Mexico had a big devaluation after the 1982 debt crisis, but the real exchange rate was allowed to appreciate again before the 1987-89 stabilization. Even if the exchange rate is fixed at a level such that some nominal appreciation can be afforded, if real appreciation persists for three or four years, the initial undervaluation and all gains in productivity will be eroded as time goes by and overvaluation accumulates.

As for whether a real depreciation implies a decline in real wages, the honest answer is yes. It usually implies a decline in real wages measured in terms of traded goods. Since food is a traded good everywhere in the world and a very important component of wages, real wages usually decline during a period of real depreciation. This is a cost that makes politicians think

twice before they devalue, because nobody wants to see real wages coming down. But compare a lower real wage with the zero wage from the unemployment due to overvaluation. I'd rather have a positive real wage decline then lose my job. So, yes, there is a cost. But people should think about devaluation not as a single act but as a component of a package that incorporates fiscal policy, monetary policy, social programs, employment programs, and so on. Real devaluation is a big issue, because it does have costs; if it were free we wouldn't be discussing it.

It may not be accurate to say that real wages in Egypt are comparable to real wages in China. Egypt and China are both poor countries; both have low real wages compared to other countries. But if I look at dollar real wages in China, they are much lower than anywhere in the world. That's why people talk about dumping from China: *the Chinese are coming and we can't compete with them.* If Egypt had China's dollar wages, coupled with other reforms, I believe that Egypt would be invading other markets more visibly than it is.

You said that price reforms in Egypt did not allow inflation to come down further. You are totally right. Many economies undergoing economic reform and stabilization at the same time see that price reforms are necessary to correct the deficits of state enterprises. But each country will have a different reason for having prices come down more slowly in some sectors and more quickly in others. The inflation rate is just an average, an indicator, with many details left aside. But that is exactly why economics is useful, because we can draw these lines that create a picture that gives us the right insights and indicates the possibilities ahead. Once you have seen the broad picture, you realize that the devil is in the details--and I don't know the details of the Egyptian economy.

Participant: Egypt witnessed a gradual depreciation of the pound from LE 0.4 per dollar, to LE 3.4. Our deficit in the balance of trade was not affected much. Reducing the value of the pound did not stimulate exports. I do not think the reaction of our exporters to depreciation is elastic. Look at the structure of our imports; 70 percent is machinery, equipment, capital goods and intermediate goods for which we cannot substitute local production, neither in the short nor medium term. Depreciation will mean more expensive machines and equipment, increasing costs of production, including those products we want to produce mainly for export. It will reduce our competitiveness and create more deficit in the balance of trade. The other 30 percent of Egypt's imports are mostly basic necessities like wheat, so depreciating the pound will be reflected either as higher bread prices or increased subsidies, and both are dangerous.

Speaker: There was a big depreciation of the pound, but most of it happened in 1991. The exchange rate did go up from LE 0.4 to 3.4 per dollar. During the last three years it has moved very little, so the real appreciation is coming now. Whether or not it has been enough to undo the real depreciation in 1991 requires further calculation. As for the effect on the trade deficit,

the exchange rate is not the only factor. Egypt has had no growth, and when you don't grow, you don't spend, and you don't import. If you don't import, you don't have a trade deficit. Looking at the size of the trade deficit is not enough to diagnose overvaluation. We want to see a healthy, growing economy with full employment, and then ask whether or not it can sustain its current account deficit in the medium run.

You mentioned that Egypt is different because of the inelasticity of imports and exports in relation to the real exchange rate. This is what Latin Americans were saying since the 1950s, claiming that their imports were inelastic, that they needed the less expensive imported capital goods, that a real appreciation would jeopardize competitiveness. In the meantime, Korea and China have been devaluing and keeping their exchange rates competitive, and Korea is now exporting those same capital goods that it was once importing.

Don't ask what your trade balance looks like today, but where you want your trade structure to be in 10 years' time. You don't want to be exporting cotton alone. You want to be exporting garments and all sorts of manufactured goods, because that's where value added is, and that's where you're going to create jobs and progress, maybe even to produce the capital goods you import today. But that will depend on where your private sector wants to go, and where market is going to allocate the resources of your economy.

Participant: You mentioned tax reform in Brazil, reduction in tax rates coupled with widening the tax base. How much reduction was introduced in tax rates and what measures were taken to achieve widening of the tax base? What was the ultimate effect on production and on government receipts in the short and medium terms? This is a very relevant topic at the moment, since this center is undertaking a tax research very much focused on this point.

Speaker:. The income tax reform in Brazil was approved only recently, so its effects on production are not yet clear. One of the most important reforms in much of Latin America is reform of indirect taxes. The introduction of value-added taxation broadly across all sectors of the economy has increased tax revenues and made it much easier to administer taxes and to stop tax evasion. Brazil has reduced income tax on businesses from 45 percent to 25 percent, but without all the exemptions that were in place before. Taxes are easier to collect on a larger number of firms, because taxes have been immensely simplified. Businesspeople will give up deductions but they will pay a lower rate. In the end they will pay more or less the same as before, but their lives will have been simplified. They can be busy with production instead of spending time searching for ways to get around the law and pay less taxes. I think tax reform is very important. In countries such as Argentina and Mexico, it was important to raise tax revenues. In Brazil, where tax revenues are 30 percent of GDP, what we need is not to increase tax revenues, but to introduce rationality in our tax structure, reduce distortions, and make taxes

more uniform. It may be that Egypt needs reform that brings more rationality and also more revenue, an income tax combined with some sort of value-added tax.

Participant: You emphasize the international monetary aspect, which is very important, and warn that when one deals with things like privatization and structural adjustment, one must take into account the macro variables. The corollary of this is that looking at the macro variables, without considering other things, can lead to a distorted picture, to a fascination with numbers, as Dr. Mahboub El Haq warned in his book *Poverty Curtain*. One might ask, for example, what the Egyptian government has done to government expenditure, and not just look at the budget deficit. Each country should be taken in its own light, and examined with those factors peculiar to its economy. This is a very complicated task because things get intertwined. We cannot ignore the unequivocal fact that we have very serious institutional, administrative problems in this country: the ossified bureaucracy, problems at the airport for exporters, problems with delivery time, with quality, and so on. We don't want to just work at it from the monetary aspect. Devaluation is just a change in price, exports are a function of P and 20 other variables. What we need is a package of synchronized policies taking into consideration the country situation with, as you said, the strategy and vision for the next 10 or 20 years.

Speaker: You brought up two important aspects of our discussion: the institutional side, and government expenditures. You are totally right that we must look at the expenditure side. That's why privatization is so important, because it will allow us to introduce rationality into the way governments spend money. And if the proceeds from privatization are used to reduce public debt, this will contribute to reducing the expenditures of debt services. Let me agree with your remarks that life is complicated; there is good policy and there is also good luck.

Participant: You argue that overvaluation is the product of the differential between the rate of inflation at home and abroad accumulated over four to five years. In a country like Egypt, one has to think about three major things. First, the ability of the production side of the economy to respond to devaluation is not there because Egypt has a large public sector. Second, unless the entrepreneurial class is able to move ahead, there will be no impact on the productive capacity. Third, inflation here has a strange impact on the economy: it increases the prices of real estate, while prices of other traded goods go down. Maybe with devaluation the inflow of capital will go to real estate and distort the economy even further. The issue is whether productivity will be increased or at least maintained. If we leave exchange rate adjustment to the structural change, and the economy itself grows, maybe the exchange rate will recover without a devaluation. If it's a product of the market, why interfere? Let the market do it.

Participant: Dr. Cardoso's discussion is highly relevant to our economic situation. I have always taken the position that the exchange rate policy of Egypt should always be in the

economic ring, and not be politicized. Exchange rate policy is a major policy instrument which should always be available. Any government that deprives itself of such a policy instrument puts itself in a corner unnecessarily. To make exchange rate policy or stability of the nominal exchange rate synonymous with the success of economic reform, and to take devaluation as evidence of the failure of reform, is a very bad policy indeed. It is very difficult to dispute the argument that between 1991-1995 there has been an appreciation in the real exchange rate. The rate of inflation in Egypt during this period was appreciably higher than the rate of inflation of our trading partners. But no less important is the fact that there has been a slippage of productivity in Egypt, while there has been a significant improvement in productivity in our trading partners. This has also been exacerbated by our failure to give effect to the structural adjustment program. If we compare the rate of inflation and the changes in productivity in Egypt with those of our trading partners, you come to a definite conclusion that there has been an appreciation in the real exchange rate during this period.

Several points were made about our stable exchange rate; if the market forces produce stability in the nominal exchange rate why interfere with the market? The nominal exchange rate stability and equilibrium in the balance of payments must be taken in conjunction with the parameters of the situation. There are three parameters in Egypt's case which explain stability in the nominal exchange rate and make it consistent with appreciation in the real exchange rate. The first is the interest rate policy. The interest rate in Egypt has been quite high during this period, and as a consequence has helped, as our speaker today said, in having increased reserves, inflow of capital, which concealed the real situation. The second parameter is trade policy, which in Egypt, in spite of some liberalization, remains highly restrictive. The third parameter is the high rate of unemployment. If any of these three parameters change—lower interest rates, a more liberalized trade policy, less unemployment—the likelihood is that the overvaluation in the real exchange rate will manifest itself in devaluation of the nominal exchange rate.

What is the cost of our present policy? We are paying dearly for politicization of the exchange rate policy, for making devaluation something synonymous with failure. We are paying first in terms of low growth rates, sometimes negative growth rates. Unemployment is touching upon 20 percent, and we have a very precarious trade balance--or rather trade deficit. I don't buy the argument about the elasticity in the case of Egypt; it is enough to look at the export side of our trade to see how backward we are compared to other countries. We are a country of 60 million people, but our exports in terms of goods are 3.5 billion dollars including oil. Without oil, it is only 2 billion dollars of exports of agricultural and manufactured products. Two billion dollars is the equivalent of what Korea exports in shirts and shoes. The failure in our export performance is not simply a question of price competitiveness, but price is indeed a factor. Our discussion of the devaluation of the Egyptian pound should be a question of

economics and should have nothing to do with the failure or success of the economic reform program. There are many economists in Egypt who believe that once we devalue, we will be going over a slippery path of devaluation leading to more devaluation. But the situation here is quite different from that in Turkey or Mexico. I don't think there is a case here for being afraid of devaluation.

Participant: We had about 25 percent devaluation in 1991, but there was a lot of devaluation starting in 1985 when a lot of Egyptian private sector businesses were just starting. We had many difficulties and bankruptcies due to people not knowing how to deal particularly with the foreign exchange, and not hedging. That may be partly why the government is reluctant to devalue the Egyptian currency. If we devalue today, that doesn't mean that we will increase exports automatically, because we have a long way to go. We have to restructure our industries, upgrade our levels of management and our ports, locate the markets which we don't have. There are many issues, but devaluation is part of a package. We have to select the right timing, and people should know when it is coming so they will not be surprised and they can plan accordingly.

Participant: I fully agree with the rationale of the analysis. However, to emphasize devaluation as the major element required to stimulate business here in Egypt is not really right. Devaluation is required if we consider the inflation differentials as mentioned. However, we devalued the pound on several occasions, and the response of the business community to increase the supply of goods and services is lagging behind and has not really convinced business to invest. What is still lagging is the structural reform, how to create a business-friendly environment, how to make the legal and regulatory frameworks more responsive to market requirements, how to create a fiscal system and financial sector capable of improving saving and investment, how to facilitate entry and exit. All these are of equal importance to the importance of the exchange rate.

Participant: Issues such as productivity growth and savings are fundamental to deciding whether Egypt has an appropriate real exchange rate, whether it is appreciating or depreciating or doing nothing. Government expenditure did decline from 42 percent of GDP to about 38 percent now. What affects exports is not so much a discreet devaluation and a gradual erosion of the exchange rate but a consistent economic policy centered around a real exchange rate. It is like the difference between drip irrigation and flood irrigation. Drip irrigation gives a consistent dosage of water to the plant every minute of every day. Flood irrigation floods it one day and lets it starve for another 15 days and then floods it again. This will not promote exports. What promotes exports is a consistent policy of exchange rate preservation.

The Koreans and others have kept their exchange rate in real terms more or less fixed. They have protected it, and have devalued it occasionally, but most of the time they have protected their exchange rate from real fluctuations, and this is what promotes export. The exporter has to know that it is not only profitable to export today, but that it will be so in two years' time, in three or four years' time. We have to have a culture of preservation of the real exchange rate, otherwise we fall into the easy trap of devaluating and sitting on it. Unless the exporter sees the profitability of the operation of export extending over a number of years he will not invest.

Domingo Cavallo, minister of economy of Argentina, follows a model that is very akin to ours. His argument, which I believe applies to Egypt, is that there is a very large scope for improving productivity and growth by just getting the government off peoples' backs. Our productivity is being kept down by continuous government interference in the productive process at all levels, from the very beginning to the provision of the service or commodity to the consumer. Therefore what will preserve the model we have chosen, of maintaining the exchange rate for a while as the nominal anchor of the system, is continued and accelerated bureaucratic reform. If we don't make the regulatory system sensible and get the government off of the producers' backs, we will lose our nominal anchor, as you very rightly say.

Another important dimension of your analysis is savings. I see privatization as the main resource of the Egyptian budget for the coming 5-10 years. We have public assets valued at anywhere between 600-650 billion pounds, roughly 10 times the national budget today. If half of that ends up in the budget or close to the budget—if they represent that kind of revenue in reduction of domestic debt—then we have the beginning of an improvement in domestic savings.

There are two dimensions that will help us maintain the exchange rate as a nominal anchor. We can maintain any nominal anchor fixed in the system with equivalent effect. The most efficient one is the exchange rate. Because we do not have a system of a social security net, because we have rigidities in government expenditures, if these two dimensions are not accelerated in the coming few years, as the analysis very pertinently shows, we will have to restructure our policy around another nominal anchor.

The Argentineans have seen an appreciation of the real exchange rate on the order of 35-40 percent in the past five years, which is more or less the type of appreciation that we have seen since 1991. Domingo said he believes that he will succeed in deflating this system by continuing the deregulation, but he also believes that in a few years they will have to look for a system that builds and underwrites what they have achieved through different means, they can't keep this up very long.

(end)

APPENDIX I

BRAZIL'S *REAL PLAN*

Stabilization under the *Real Plan* went through three stages: fiscal adjustment, monetary reform, and use of the exchange rate as a nominal anchor. In January 1994 Congress approved a fiscal adjustment plan that included cuts in current spending and creation of the Emergency Social Fund. The fund—financed by redirecting federal revenues, limiting the ability of states and municipalities to access credit, and recovering mandatory social security contributions—allowed the government to break some of its mandated links between revenues and expenditures, freeing 20 percent of revenues that had been earmarked for other purposes. The increased flexibility and economic growth that adjustment brought led to an operational surplus in 1994.

The second component of the *Real Plan*, a temporary monetary reform measure, linked contracts, prices, wages, and the exchange rate to a single daily escalator and unit of account, the unidade real de valor (URV). The adjustment, which started on March 1, 1994 and lasted four months, was intended to help restore the credibility of the cruzeiro real. The central bank determined a daily parity between the cruzeiro real and the URV based on the current rate of inflation, as reflected in the three most closely-watched price indexes. Since the cruzeiro real and the URV depreciated relative to the US dollar at roughly the same rate, most prices and contracts were implicitly in US dollars.

On July 1, 1994, a new currency, the real, was introduced by converting contracts denominated in URVs into reals at a rate of one to one. The cruzeiro real ceased to exist, and was converted at 2,750 cruzeiros reals per real.

Fiscal adjustment, although incomplete, has been substantial, with fiscal indicators improving since 1994. Consider the public sector borrowing requirement, which is one conventional measure of the budget deficit. This measure represented 58 percent of gross domestic product (GDP) in 1993, but it fell to 44 percent in 1994 and to 7 percent in 1995. A large share of interest payment is closely correlated with inflation. Thus the dramatic drop in the public sector borrowing requirement in 1995 reflects the fall in nominal interest rates in response to the substantial reduction in inflation.

Another measure of the deficit, the operational deficit (second column in table 3), excludes from government expenditures the inflation component of interest payments. The calculation of the operational deficit is extremely sensitive to the deflator used and to variations in the exchange rate, particularly in an economy where prices have moved by as much as 80 percent in a single month. With the drop in inflation, these numbers are becoming more transparent. High real domestic interest rates increased the cost of domestic debt service, contributing to an operational deficit of 4 percent in 1995. This measure of the

deficit reveals that the difficult task of cutting expenditures remains, a finding which is confirmed by the small size of the primary surplus.

Table 3: Different Measures of the Budget Deficit as Share of GDP, Brazil, 1990-1995(%)

Year	Public Sector Borrowing Requirement	Operational Surplus (Deficit)	Primary Surplus (Deficit)
1990	30	1.3	4.7
1991	24	1.4	3.0
1992	44	(2.2)	2.4
1993	58	0.2	2.6
1994	44	1.1	4.8
1995	7	(4.2)	1.0

Source: Finance Ministry.

The primary surplus, which excludes interest payments (third column in table 3), declined in 1995, reflecting the significant increase in payroll outlays. This could soon change, however, because there is now a new awareness at all levels of government and among the public that fiscal balance is an essential component of a healthy economy. Provincial governments are entering agreements with the finance minister to restructure their debts. These agreements impose heavy conditionality on governments, including an increase in primary surpluses by reducing payrolls and privatizing local concerns.

Brazil's success in bringing down inflation was associated with real exchange rate appreciation (figure 6) and economic expansion between August 1994 and April 1995, followed by a contraction in mid-1995. This pattern, similar to that observed in other countries where the exchange rate was used as a nominal anchor, includes: a real exchange rate appreciation, a rise in real wages, a deterioration in external accounts, and an economic boom followed by a slowdown.

An inflow of foreign investment supported the real appreciation between July and mid-October 1994, when the central bank imposed a 1 percent tax on foreign investors purchasing Brazilian equities, raised the tax rate imposed on foreign investors in Brazilian fixed income investment funds (from 5 to 9 percent), and raised the tax rate on foreign credit transactions (from 3 to 7 percent). The large capital inflows contributed to an increase in foreign reserves that amounted to fourteen months of imports by the end of 1994.

The economic boom did not originate from a decline in real interest rates, as happened in other exchange rate–based disinflation programs (Rodriguez 1982; Dornbusch 1982). In

fact, real interest rates remained high throughout the period (see table 1). Rather, the boom appears to have originated with the reduction in the inflation tax, which generated a wealth effect due to the lack of Ricardian equivalence (Helpman and Razin 1987). Durable goods consumption also played a role (De Gregorio, Guidotti, and Vegh 1994). An increase in real wages contributed to the consumption boom; between 1993 and 1995 several wage adjustments took place, increasing real wages significantly.

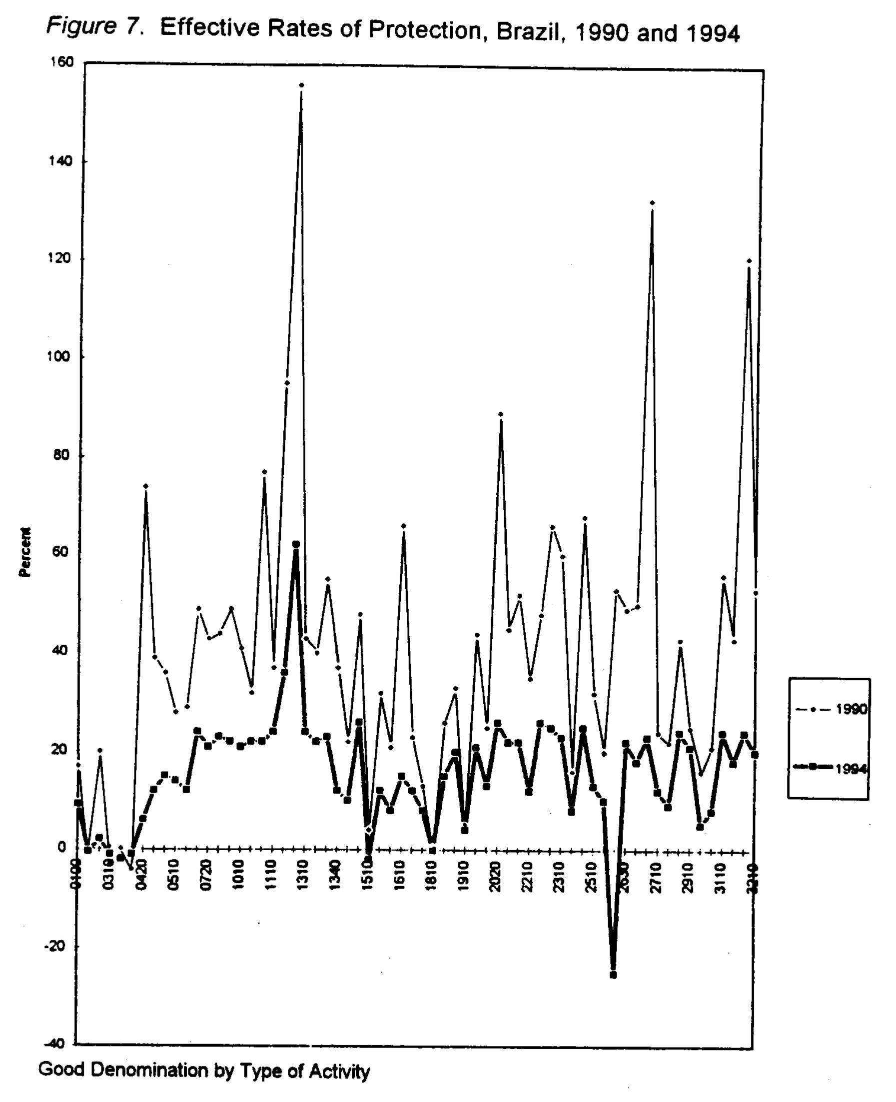
During the early 1990s, Brazil followed the lead of other Latin American countries and opened trade by reducing tariffs, eliminating nontariff barriers, and abolishing subsidies and incentives to exports. The average tariff rate fell from more than 30 percent in 1991 to 14 percent by the end of 1994. Both nominal and effective protection declined and became more uniform (figure 7). In January 1995, the Mercosul common external tariff became effective. The tariff, which ranges from zero to 20 percent on about 85 percent of Mercosul's trade with the rest of the world, imposes discipline by making it more difficult to reverse liberalization measures. Partly as a result of liberalization, imports have increased substantially (figure 8)

Figure 6. Effective Real Exchange Rate, Brazil, 1980-1995

Index 1990=100

Note: Movement Up = Real Appreciation.
Source: Morgan Guaranty.

Figure 7. Effective Rates of Protection, Brazil, 1990 and 1994



Good Denomination by Type of Activity

Source: Institute of Economic and Social Research, Planning Ministry.

Figure 8. Imports Per Capita, Brazil 1973-1995

Dollars

350
300
250
200
150
100
50
0

1973 1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995

APPENDIX II: LIST OF ATTENDEES

Alaa Amer
Senior Vice President
Al Ahly for Investment and Development, Cairo

Virgilio Moretzsohn de Andrade
Brazilian Ambassador to Egypt

Mohamed Gamal El Din Bayoumi
Assistant to the Minister of Foreign Affairs
Ministry of Foreign Affairs, Cairo

Adel Bishai
Chairman, Economics Department
American University in Cairo

Youssef Boutros Ghali
Minister of State at the Council of Ministers, Cairo

Laila Darwish
Program Officer
UNDP, Cairo

Nagui El Fayoumi
ECES Board Member
Sp. Assistant to Associate Director for Trade and Investment
US Agency for International Development, Cairo Mission

Heba Handoussa
Managing Director
Economic Research Forum for the Arab Countries, Iran & Turkey

Hazem Hassan
ECES Executive Committee Member
Senior Partner, Hazem Hassan & Co., Cairo

Taher Helmy

ECES Board Chairman
Partner, Baker & McKenzie Law Firm
Khaled Ikram
Resident Representative
The World Bank, Cairo

Laila El Khawaga
Professor of Economics
Cairo University

Robin Lamb
Head of Political and Economic Section
British Embassy, Cairo

Martine Leveque
Economic Advisor
European Union, Cairo Office

Ashraf Mahmoud
Senior Vice President
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Mohamed Mansour
ECES Secretary General
Chairman, Mantrac, Cairo

Ronald Mendes
Second Secretary
Brazilian Embassy, Cairo

Said El Naggar
Chairman, New Civic Forum, Cairo

Timothy O'Connor
Project Officer
US Agency for International Development, Cairo Mission

Ghada Ragab
Journalist

Al Ahram Weekly

Raouf Saad
Deputy Assistant to the Foreign Minister for Regional Economic Cooperation
Ministry of Foreign Affairs, Cairo

Hamdi Saleh
Director, Dept. of Research Centers, Universities,
and Public Opinion Institutions, Cairo

Asaad Samaan
ECES Board Member
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Youssef Sharnouby
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Arvind Subramanian
Resident Representative
International Monetary Fund, Cairo

Fouad Sultan
Chairman And Managing Director
Al Ahly for Investment and Development, Cairo

Samir Tobar
Chairman, Economic Committee
National Democratic Party, Cairo

James Whittington
Cairo Correspondent
Financial Times

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